

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

ORDER NO. 90-038

NPDES NO. CA0029611

WASTE DISCHARGE REQUIREMENTS FOR:

BANK OF CALIFORNIA  
1620 SOUTH DELAWARE STREET  
SAN MATEO, SAN MATEO COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter Board) finds that:

1. Bank of California (hereinafter discharger) owns a former gasoline station site located at 1620 South Delaware Street in the City of San Mateo, San Mateo County.
2. The discharger, by application dated November 16, 1989 has applied for waste discharge requirements and a permit to discharge waste under the National Pollutant Discharge Elimination System (NPDES).
3. Approximately 200 gallons of gasoline were spilled in 1983 during the installation of new gasoline pumps. In addition, field observation and tank tests performed in 1984 and 1985 indicated that all four gasoline tanks on-site were leaking. All tanks and pumps were removed in 1986.
4. Seven monitoring wells have been installed on site. Groundwater monitoring data has indicated that a plume of free product up to 18 inches thick was floating on the groundwater table at a depth of approximately 2 to 6 feet below ground surface. The plume has spread up to 90 feet northwest and 20 feet east from the source. Data also indicated that a dissolved product plume extends at least 100 feet northwest, 50 feet west and 30 feet east of the source.
5. Site investigations show that the groundwater beneath the site has been polluted by floating gasoline, dissolved petroleum hydrocarbons, dissolved benzene, toluene, xylenes, ethylbenzene, 1,2-dichloroethane, naphthalene, and 2-methylnaphthalene. In addition copper, lead, mercury, nickel, and zinc were detected in water samples obtained from the site.

6. The discharger has installed a groundwater extraction system on-site which consists of a french drain and three extraction wells. The discharger proposes to treat the extracted groundwater by utilizing a groundwater/product separator. Free product will be reclaimed; groundwater will be directed through three carbon absorption units to remove the remaining contaminants before discharge to the storm sewer.
7. The Board adopted Resolution No. 88-160 on October 19, 1988. The Resolution urges dischargers of extracted groundwater from groundwater clean up projects to reclaim their effluent and that when reclamation is not technically and economically feasible to discharge to publicly owned treatment works (POTWs). If neither reclamation nor discharge to POTWs is technically and economically feasible, it is the intent of the Board to adopt NPDES permits authorizing the discharge of extracted groundwater.
8. According to the discharger, reclamation of the treated groundwater in this area is not technically and economically feasible. The discharger does not use a significant volume of water at its property, and there are no demands for irrigation or industrial process water in the area. The discharger has also been denied permission to discharge the treated groundwater to the local POTW. Therefore, the groundwater will be discharged to the storm sewer.
9. The system will be designed to handle a flow of approximately three gallons per minute or 4320 gallons per day (gpd). Effluent will be discharged through an inlet into the concrete lined storm sewer channel adjacent to Sixteenth Avenue. The storm sewer drains into the Marina Lagoon and Lower San Francisco Bay approximately 1 mile northeast of the site (see Attachment A).
10. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) on December 17, 1986. The Basin Plan contains water quality objectives for Lower San Francisco Bay, and contiguous surface waters and ground water.
11. The existing and potential beneficial uses of Marina Lagoon, Lower San Francisco Bay, and contiguous surface waters are:
  - a. Contact and Non-Contact Recreation
  - b. Wildlife Habitat
  - c. Fish Spawning and Migration
  - d. Navigation
  - e. Commercial and Sport Fishing
  - f. Preservation of Rare and Endangered Species
  - g. Shellfish Harvesting

- h. Estuarine Habitat
- i. Industrial Service Supply

12. The existing and potential beneficial uses of the ground waters in the Santa Clara Valley ground water basin are:
  - a. Municipal and Domestic supply
  - b. Industrial process supply
  - c. Industrial service supply
  - d. Agricultural supply
13. The Basin Plan prohibits discharge of "wastewater which has particular characteristics of concern to beneficial uses at any point at which the wastewater does not receive a minimum initial dilution of at least 10:1, or into any nontidal water, dead-end slough, similar confined waters, or any immediate tributaries thereof".
14. The Basin Plan allows for exceptions to the prohibitions referred to in Finding 13 above when it can be demonstrated that a net environmental benefit can be derived as a result of the discharge.
15. Exceptions to the prohibitions referred to in Finding 13, and which apply to the discharge, are warranted because the discharge is an integral part of a program to clean up polluted ground water and thereby produce an environmental benefit, and because receiving water concentrations are expected to be below levels that would affect beneficial uses. Should future studies indicate chronic effects, not currently anticipated, the Board will review the requirements of this order based upon Receiving Water Limitation C.1.e.
16. The Basin Plan prohibits discharge of "all conservative toxic and deleterious substances, above those levels which can be achieved by a program acceptable to the Board, to waters of the Basin." The discharger's groundwater extraction and treatment system and associated operation, maintenance, and monitoring plan constitutes an acceptable control program for minimizing the discharge of toxicants to waters of the State.
17. Effluent limitations of this Order are based on the Basin Plan, State plans and policies, U.S. Environmental Protection Agency guidance, and best engineering and geologic judgement as to best available technology economically achievable.
18. The issuance of waste discharge requirements for this discharge is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (CEQA) pursuant to Section 13389 of the California Water Code.

19. The Board has notified the discharger and interested agencies and persons of its intent to issue waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
20. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the discharger, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

A. Discharge Prohibitions

1. Neither the treatment nor the discharge of pollutants shall create a pollution, contamination, or nuisance as defined by Section 13050 of the California Water Code.
2. The discharge shall be limited to treated groundwater and added chemicals which do not adversely affect the environment and comply with requirements of this Order.
3. The maximum monthly average flow shall not exceed 4320 gpd. If additional units, similar to the original treatment units, are provided additional flow may be permitted in proportion to the capacity of the additional units upon written approval of the Board's Executive Officer up to a maximum of 12,960 gpd.

B. Effluent Limitations

1. The effluent at the point of discharge to the storm drain shall not contain constituents in excess of the following limits:

<u>Constituent</u>	<u>Unit</u>	<u>Instantaneous Maximum</u>
a. Benzene	ug/l	0.5
b. 1,2-Dichloroethane	ug/l	0.5
c. Ethylbenzene	ug/l	0.5
d. Toluene	ug/l	0.5
e. Xylenes	ug/l	0.5

- |   |      |      |
|---|------|------|
| f. Polynuclear<br>Aromatic<br>Hydrocarbons        | ug/l | 15.0 |
| g. Total Petroleum<br>Hydrocarbons as<br>gasoline | ug/l | 50.0 |
2. The pH of the discharge shall not exceed 8.5 nor be less than 6.5
  3. TOXICITY:  
  
The survival of test fish in 96-hour static renewal bioassays of the discharge shall be a median of 90% survival and a 90 percentile value of not less than 70% survival.

C. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place:
  - a. Floating, suspended, or deposited macroscopic particulate matter or foam;
  - b. Bottom deposits or aquatic growths;
  - c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;
  - d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;
  - e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.
2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State in any place within one foot of the water surface:
  - a. Dissolved oxygen: 5.0 mg/l minimum. The median dissolved oxygen concentration for any three consecutive months shall not be less than 80% of the dissolved oxygen content at

saturation. When natural factors cause lesser concentration(s) than specified above, the discharge shall not cause further reduction in the concentration of dissolved oxygen.

b. pH: The pH shall not be depressed below 6.5 nor raised above 8.5, nor caused to vary from normal ambient pH levels by more than 0.5 units.

c. Un-ionized ammonia: 0.025 mg/l as N Annual Median  
0.4 mg/l as N Maximum at any time


3. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

D. Provisions

1. The discharger shall undertake a metals study as follows:
  - a. The discharger shall submit a report which is acceptable to the Executive Officer on the procedure for determining the amount of metals in the background groundwater, and the amount of metals contamination on the site by May 1, 1990.
  - b. The discharger shall submit a report that is acceptable to the Executive Officer which will evaluate the available methods of metals removal by October 1, 1990 or within 2 months of initial discharge, whichever is sooner.
  - c. The discharger shall analyze the storm drain just prior to discharge to Marina Lagoon, and the receiving waters for copper, lead, zinc, and nickel content before and after commencement of discharge. The discharger shall submit a proposed sampling schedule by March 21, 1990.

- d. Within 4 months of initial discharge, a final report shall be submitted that evaluates cost of treatment to achieve compliance with the effluent limitations listed in Table IV-1 of the San Francisco Bay Region Water Quality Control Plan (Basin Plan) versus potential beneficial use impacts. Board staff will review the report and make recommendations regarding appropriate effluent metal limitations.
2. The discharger shall comply with all sections of this Order immediately upon adoption.
3. The discharger shall comply with the Self-Monitoring Program as adopted by the Board and as may be amended by the Executive Officer. As new groundwater extraction and treatment systems are completed, the schedule of monitoring specified in Part B, Table 1, of the Self-Monitoring Program will be reviewed.
4. The discharger shall notify the Regional Board if the self-monitoring program results, or if any activity has occurred or will occur which would result in a frequent or routine discharge of any toxic pollutant not limited by this Order.
5. This permit may be modified prior to the expiration date to include effluent limitations for toxic constituents determined to be present in significant amounts in the discharge through the comprehensive monitoring program included as part of this order.
6. The discharger shall comply with all items of the attached "Standard Provisions, Reporting Requirements and Definitions" dated December 1986 except Items A.10, B.2, B.3, C.8 and C.11.
7. This Order expires March 20, 1995. The discharger must file a Report of Waste Discharge in accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code not later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements.
8. This Order shall serve as a National Pollutant Discharge Elimination System Permit pursuant to Section 402 of the Clean Water Act, or amendments thereto, and shall become effective 10 days after the date of its adoption provided the Regional Administrator, Environmental Protection Agency, has no objections. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Steven R. Ritchie, Executive Officer do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on March 21, 1990.

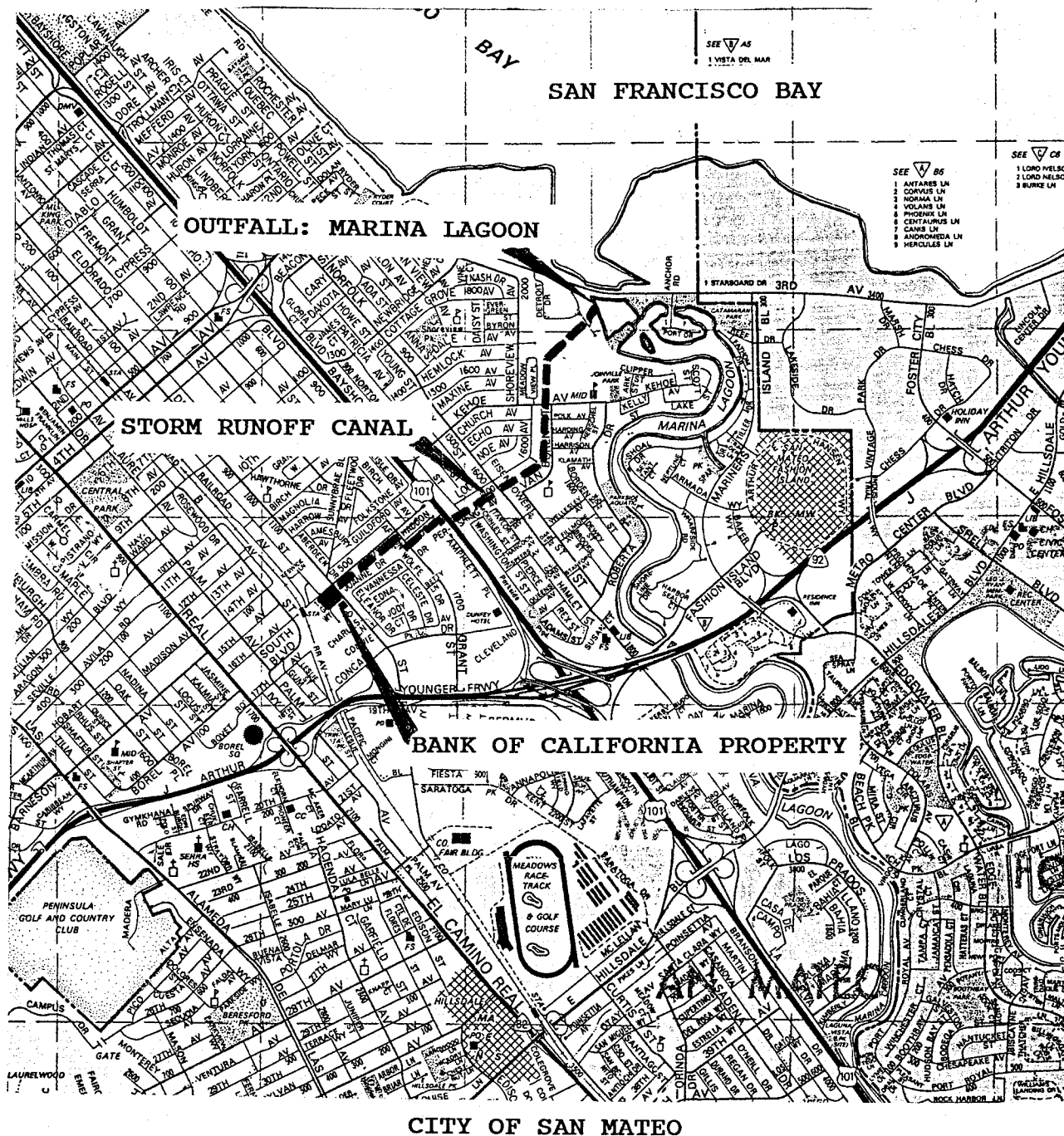


STEVEN R. RITCHIE  
EXECUTIVE OFFICER

Attachments:

Attachment A (Site Map)  
Standard Provisions & Reporting Requirements, December 1986.  
Self-Monitoring Program





# ATTACHMENT A

STATE OF CALIFORNIA  
REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

## SITE LOCATION

BANK OF CALIFORNIA  
1620 S. DELAWARE STREET  
SAN MATEO, SAN MATEO COUNTY

DRAWN BY: CSF DATE: 1/29/90 DRWG.NO.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM  
FOR

BANK OF CALIFORNIA  
1620 SOUTH DELAWARE STREET  
SAN MATEO, SAN MATEO COUNTY

NPDES NO. CA0029611

ORDER NO. 90-038

CONSISTS OF

PART A (dated December 1986 Mod. SBTD 1/23/87)

AND

PART B

## **Part B**

### **SELF MONITORING PROGRAM FOR BANK OF CALIFORNIA CITY OF SAN MATEO, SAN MATEO COUNTY**

#### **I. DESCRIPTION OF SAMPLING STATIONS**

##### **A. INFLUENT**

###### **Station**

I-1            At a point after groundwater extraction and immediately prior to discharge to the treatment unit.

##### **B. EFFLUENT**

E-1            At a point after treatment but before discharge into the storm drain leading to Marina Lagoon.

##### **C. RECEIVING WATERS**

C-1            At a point 50 feet downstream from the point of discharge into the Marina Lagoon.

#### **II. START UP PHASE AND REPORTING**

During the original start up for the treatment system, sampling of the effluent must occur on the first and fifth day of operation. On the first day of the original start up, the system shall be allowed to run for at least two hours or until stabilized; then, influent and effluent shall be sampled and submitted for analysis. Prior to receipt of the results of the initial samples, all effluent shall be discharged into a holding tank (that is contained, not discharged into the storm drain) until the results of the analyses show the discharge to be within the effluent limits established in the NPDES Permit. If the results of the analyses show the discharge to be in violation, the effluent shall be disposed in accord with the provisions of Chapter 15, Title 23, California Administrative Code.

Analyses results of the fifth day samples must be received and reviewed by the discharger within 48 hours of the time samples are taken but discharge to the storm drain can continue as long as there are no violations. If a violation should occur, the discharge shall be directed to a holding tank and contained or the system shall be shut down.

If the system is shut down more than 48 hours during the

original start up (awaiting analyses results, etc.), the original start up procedures and sampling must be started again when start up is resumed. If the system is shut down after the start up period (maintenance, repair, violations, etc.) the reason for shut down, corrective action taken and the proposed start up procedures shall be reported to the Board within 15 days.

### III. MISCELLANEOUS REPORTING

A report describing the need, method of chemical application and disposal shall be submitted to the Board at least 30 days before the use of any chemicals in the treatment, or operation and maintenance of the treatment units, is to begin.

### IV. SCHEDULE OF SAMPLING AND ANALYSIS

The schedule of sampling and analysis shall be that given in Table 1 (attached).

### V. BIOASSAY REQUIREMENT

The fish species to be used for compliance in the bioassay shall be rainbow trout.

### VI. MODIFICATION TO PART A OF THE SELF-MONITORING PROGRAM

#### A. Delete Sections:

D.1.a., D.2.a., D.2.d., D.2.e., D.2.g., D.2.h., and E.4.

#### B. Insert Sections:

D.2.a. Samples of effluent and receiving waters shall be collected at times coincident with influent sampling unless otherwise stipulated. The Regional Board or Executive Officer may approve an alternative sampling plan if it is demonstrated that expected operating conditions warrant a deviation from the standard sampling plan.

D.2.d. If analytical results are received showing any instantaneous maximum limit is exceeded, a confirmation sample shall be taken within 24 hours and results known within 24 hours of the sampling.

D.2.e. If any instantaneous maximum limit is exceeded in the confirmation sample described in Section D.2.d., the discharge shall be terminated until the cause of the violation is found and corrected. For other violations, the discharger shall

implement procedures that are acceptable to the Executive Officer on a case by case basis.

C. Modify Sections:

- G.4. Written reports under G.4. shall be filed quarterly, by the 15th of January, April, July, and October.
- G.4.b. The report format shall be a format that is acceptable to the Executive Officer.
- G.4.d. The report format shall be a format that is acceptable to the Executive Officer.
- G.4.e. The report format shall be a format that is acceptable to the Executive Officer. NPDES Discharge Monitoring Report, EPA Form 3320-1, is provided as guidance. Influent and effluent data summary reports shall be submitted only to the Regional Board and do not need to be submitted to EPA.

I, Steven R. Ritchie, Executive Officer, do hereby certify that the foregoing Self-Monitoring Program:

- 1. Has been developed in accordance with the procedures set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 90-038.
- 2. Was adopted by the Board on March 21, 1990.
- 3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger, and revisions will be ordered by Executive Officer or Regional Board.



Steven R. Ritchie  
Executive Officer

Attachments: Table 1  
Appendices: A-E

TABLE 1

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS  
FOR BANK OF CALIFORNIA, SAN MATEO

<u>SAMPLING STATION</u>	<u>I-1</u>	<u>E-1</u>	<u>C-1</u>
Type of Sample	GRAB	GRAB	GRAB
Flow Rate (gal/day)		C	
pH (units)	D/M	D/M	Q/V
Temperature (deg. C)	D/M	D/M	Q
Dissolved Oxygen (mg/l)	D/M	D/M	Q
Electrical Conductivity	D/M	D/M	Q
Priority Pollutant Metals	D/M	D/M	V
EPA 602 for: Benzene Toluene Total Xylenes Ethylbenzene	D/M	D/M	V
Modified EPA 8015 for Total Petroleum Hydro- carbons as gasoline and diesel	D/M	D/M	V
EPA 610 for Total Polynuclear Aromatic Hydrocarbons	D/M	D/M	V
EPA 601*	2/A	2/A	V
Toxicity		A	

LEGEND FOR TABLE 1

\* Concentrations of 1,2-Dichloroethane shall be included in the determination, and the ten largest peaks in the chromatogram other than the priority pollutants listed in the method shall be identified.

C = continuous flow readings: report average daily flow based on weekly total

D/M = once during the first and fifth day of operation;

monthly thereafter

Q = quarterly

V = sampling should be performed whenever E-1 is in violation  
2/A = once during the first day of operation; semi-annually  
thereafter.

A = once during the first week of operation; annually  
thereafter.